

Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of the	)	WT Docket No. 03-66
Commission's Rules to Facilitate the Provision of	)	RM-11614
Fixed and Mobile Broadband Access, Educational	)	
and Other Advanced Services in the 2150-2162	)	
and 2500-2690 MHz Bands	)	

**Comments of Nokia Siemens Networks US LLC and Nokia Inc.**

Nokia Siemens Networks US LLC (“Nokia Siemens Networks”) and Nokia Inc. (“Nokia”), hereby comment in response to the Fourth Further Notice of Proposed Rulemaking (“FNPRM”) adopted by the Federal Communications Commission (“FCC” or “Commission”) on May 24, 2011 in the above-referenced proceeding.<sup>1</sup> Nokia Siemens Networks and Nokia support the changes to Section 27.53(m) of the Commission’s rules<sup>2</sup> proposed by the Wireless Communications Association International (“WCAI”).<sup>3</sup>

Nokia Siemens Networks is a leading global enabler of communications services. The company provides a complete, well-balanced product portfolio of mobile and fixed network infrastructure solutions and addresses the growing demand for services with 20,000 service professionals worldwide. Nokia Siemens Networks is one of the largest telecommunications infrastructure companies in the world with operations in 150 countries.

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<sup>1</sup> *In the Matter of Amendment of Parts 1, 21, 73, 74 and 101 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, Fourth Further Notice of Proposed Rulemaking, WT Docket No. 03-66, RM-11614 (rel. May 27, 2011) (“FNPRM”).

<sup>2</sup> 47 C.F.R. § 27.53(m).

<sup>3</sup> *In the Matter of Wireless Communications Association Int’l Petition to Amend Section 27.53(m) of the Commission’s Rules*, Public Notice, RM-11614 (rel. Nov. 4, 2010).

Nokia is a world leader in mobile communications, driving the growth and sustainability of the broader mobility industry. Nokia connects people to each other and the information that matters to them with easy-to-use and innovative products like mobile phones, devices and solutions for imaging, games, media and businesses.

In its October 22, 2010 Petition for Rulemaking,<sup>4</sup> WCAI asked that the Commission amend its rules governing out-of-band-emission (OOBE) limits for mobile digital stations in the 2.5 GHz band to accommodate the use of wider channel bandwidths. Specifically, WCAI asked that the Commission relax slightly the OOBE limits for mobile digital stations in section 27.53(m)(4) from  $43 + 10 \log (P)$  dB to  $40 + 10 \log (P)$  dB at the channel edges, and impose a  $43 + 10 \log (P)$  dB attenuation factor beyond 5MHz from the channel edges, and a  $55 + 10 \log (P)$  dB attenuation factor at “X” MHz from the channel edges where “X” is the greater of 6 MHz and the actual channel bandwidth. WCAI also requested that the Commission allow a resolution bandwidth of 2 percent for mobile digital stations in section 27.53(m)(6). In its FNRPM, the Commission specifically seeks comment on whether it should modify the out-of-band emission limits as requested by WCAI.<sup>5</sup>

Nokia Siemens Networks and Nokia support the proposed rule changes and agree with WCAI that amending the Commission rules on OOBE limits for this band along the lines proposed would help realize the benefits of existing and emerging mobile broadband technologies. The rules would better reflect the global marketplace by increasing alignment with the approach taken in the global 3rd Generation Partnership Project (3GPP),<sup>6</sup> as well as the

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<sup>4</sup> Petition for Rulemaking, Wireless Communications Association International, RM-11614 (filed Oct. 22, 2010) (WCAI Petition).

<sup>5</sup> FNRPM at ¶¶ 11-13.

<sup>6</sup> The 3rd Generation Partnership Project is a consensus-driven international partnership of telecommunications standards bodies.

anticipated approach in upcoming revisions to global WiMAX<sup>7</sup> standards. The resultant flexibility will allow for wider channel bandwidths, which in turn will mean that more efficient and effective networks can be deployed using wider and more spectrally efficient channels, better achieving the goals of the Commission's National Broadband Plan for mobile broadband. Moreover, this harmonization with global, industry-consensus standards enables manufacturers and network operators to take advantage of very meaningful economies of scale in the 2.5 GHz band, reducing the amount of equipment customization needed for the U.S. market. The result is that devices cost less and come to market more quickly, to the obvious benefit of U.S. consumers.

As the Commission notes, the proposed rule is not limited to 20 MHz channels and international standards bodies are contemplating the use of wider channels.<sup>8</sup> The Commission asks whether the proposed rule is suitable for channels wider than 20 MHz. Because the proposed rule scales linearly across any bandwidth, it can accommodate future carrier-aggregation features under consideration internationally for devices operating pursuant to channelization plans of greater than 20 MHz. The Commission should, therefore, adopt the proposed OOB rule and not limit it to 20 MHz channels.

The Commission also asks whether, in connection with the proposed rule changes, it should consider adopting additional measures of protecting against interference to adjacent bands by, for example, establishing stricter OOB limits at the band edges of the 2.5 GHz allocation.<sup>9</sup> Nokia Siemens Networks and Nokia agree with WCAI that the likelihood of heightened adjacent band interference is remote, and processes are already in place to handle any adjacent band interference issues. In addition, such a proposal would establish an OOB framework that

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<sup>7</sup> Worldwide Interoperability for Microwave Access (WiMAX).

<sup>8</sup> FNPRM at ¶ 17.

<sup>9</sup> *Id.* at ¶ 16.

would be unique to the United States and the ecosystem would deviate from international standards. This would eliminate one of the primary benefits of the change, which is to enable manufacturers and network operators to realize enormous economies of scope and scale in 2.5 GHz mobile devices, which would otherwise need to be customized for use in the United States. Nokia Siemens Networks therefore supports the changes to the OOB limits as proposed by WCAI without additional or different limits at the 2.5 GHz band edges.

In conclusion, Nokia Siemens Networks and Nokia support adoption of the modifications to the OOB rules proposed by WCAI and agree with WCAI that granting its Petition is critical to facilitating the rapid nationwide deployment of 4G mobile broadband services in the 2.5 GHz band.

Respectfully submitted,

**Nokia Siemens Networks US LLC**  
**Nokia Inc.**

By:           /s/ Derek Khlopin          

Derek Khlopin  
Head of Government Relations  
Nokia Siemens Networks  
1401 K Street, NW  
Suite 450  
Washington, D.C. 20005  
(202) 887-0145

          /s/ Leo Fitzsimon          

Leo Fitzsimon  
Vice President, Government and Industry  
Affairs  
Nokia Inc.  
1401 K Street, NW  
Suite 450  
Washington, D.C. 20005  
(202) 887-0145

Dated: July 7, 2011